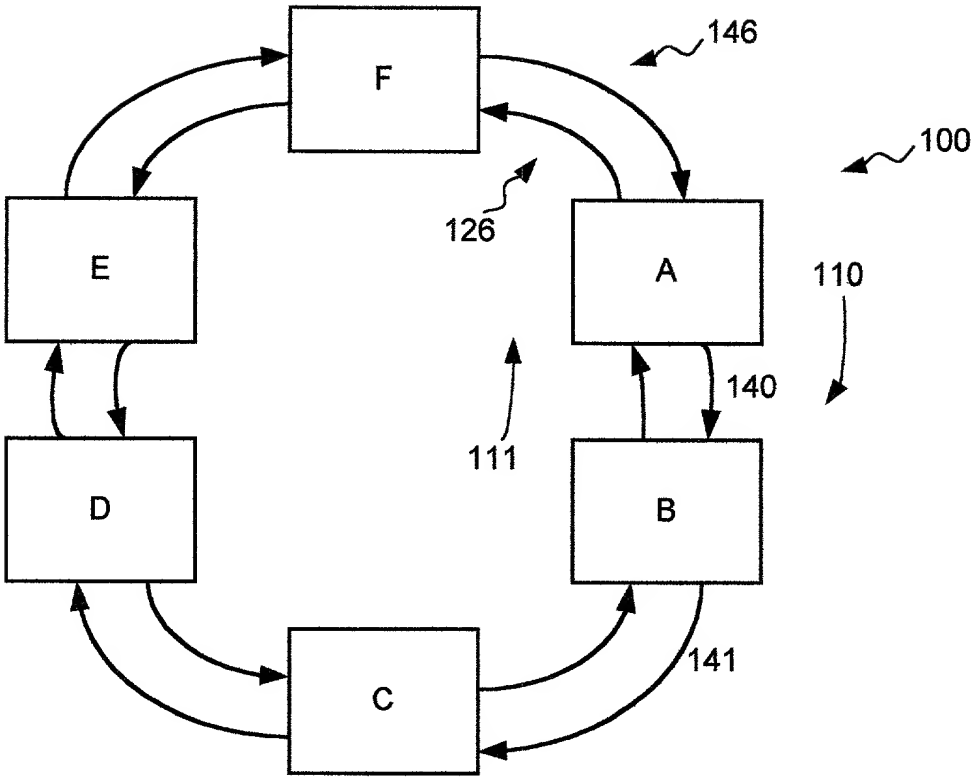

Fig. 1

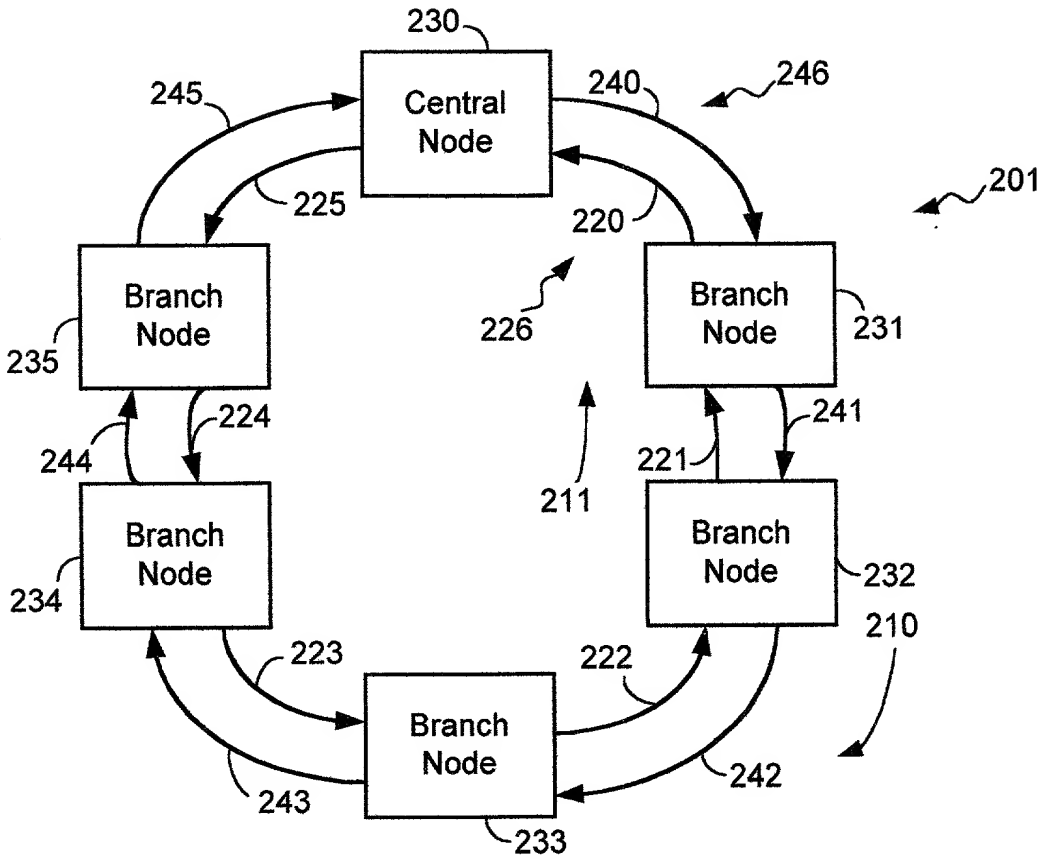
230
Central Node
245
240
246
201
225
220
Branch Node
235
226
Branch Node
231
224
241
244
221
211
Branch Node
234
Branch Node
232
210
223
222
Branch Node
243
242
233

Fig. 2

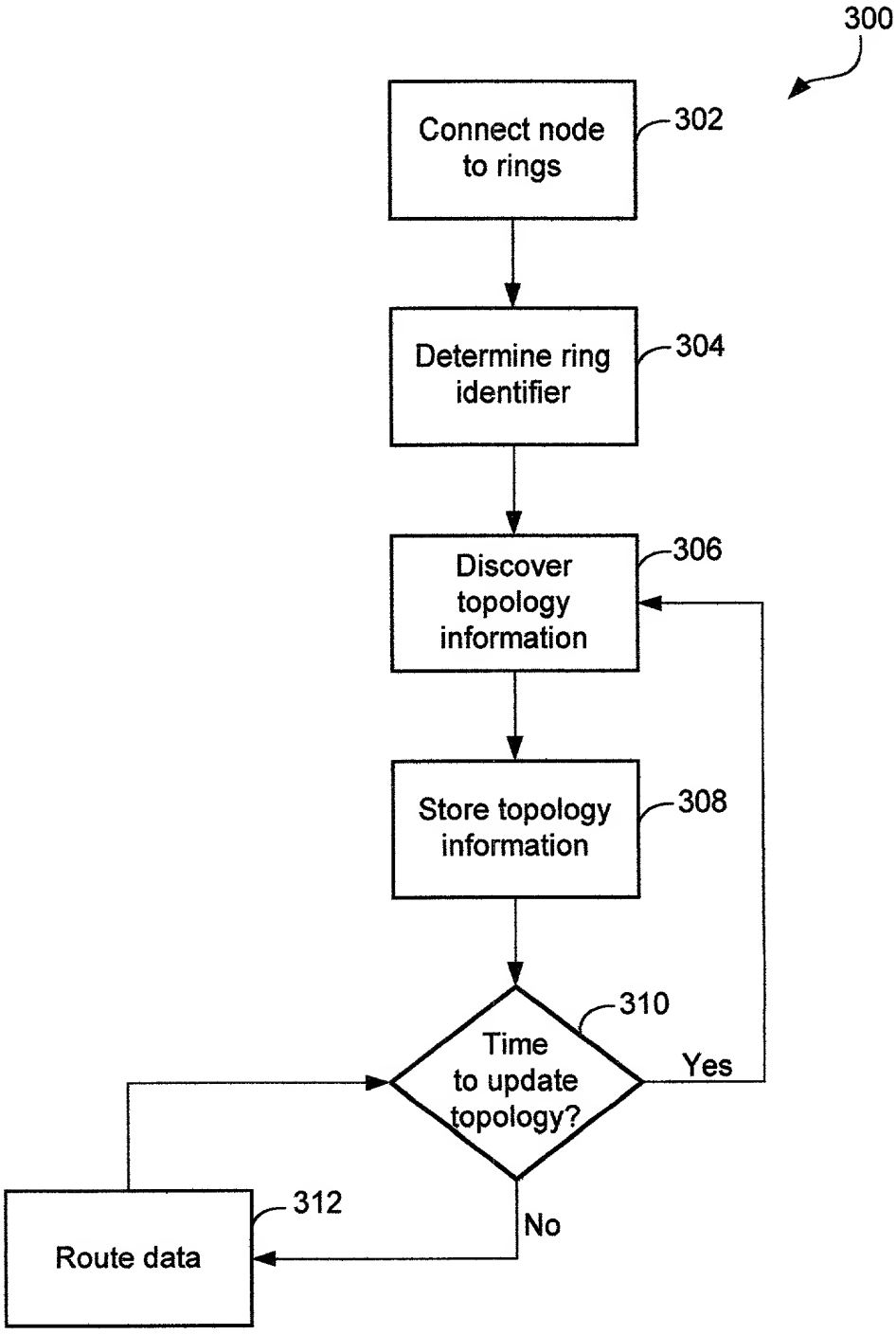
300
Connect node to rings
302
Determine ring identifier
304
Discover topology information
306
Store topology information
308
Time to update topology?
310
Yes
No
Route data
312

Fig. 3a

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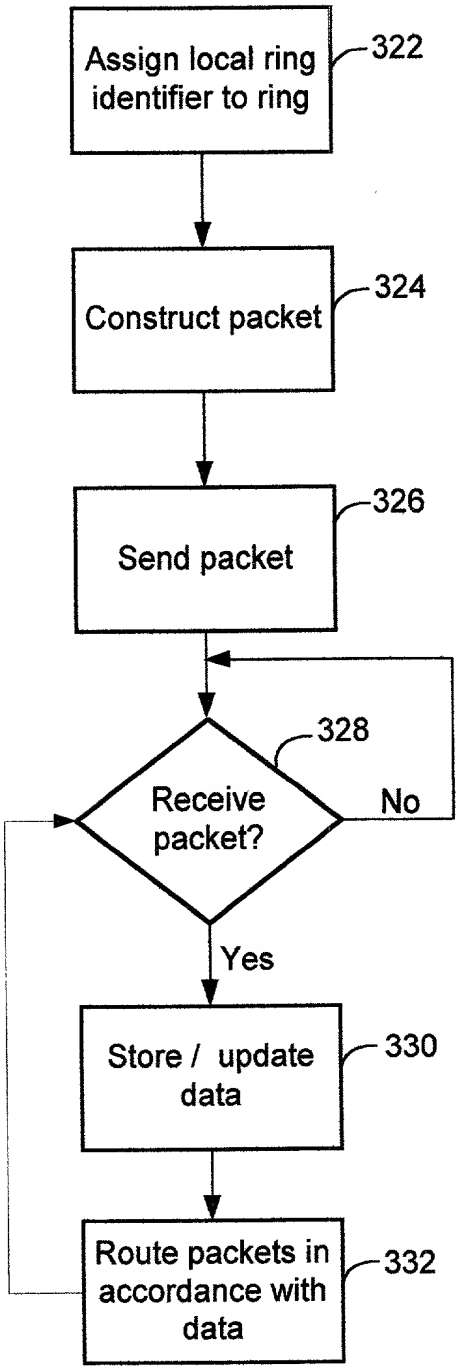

Fig. 3b

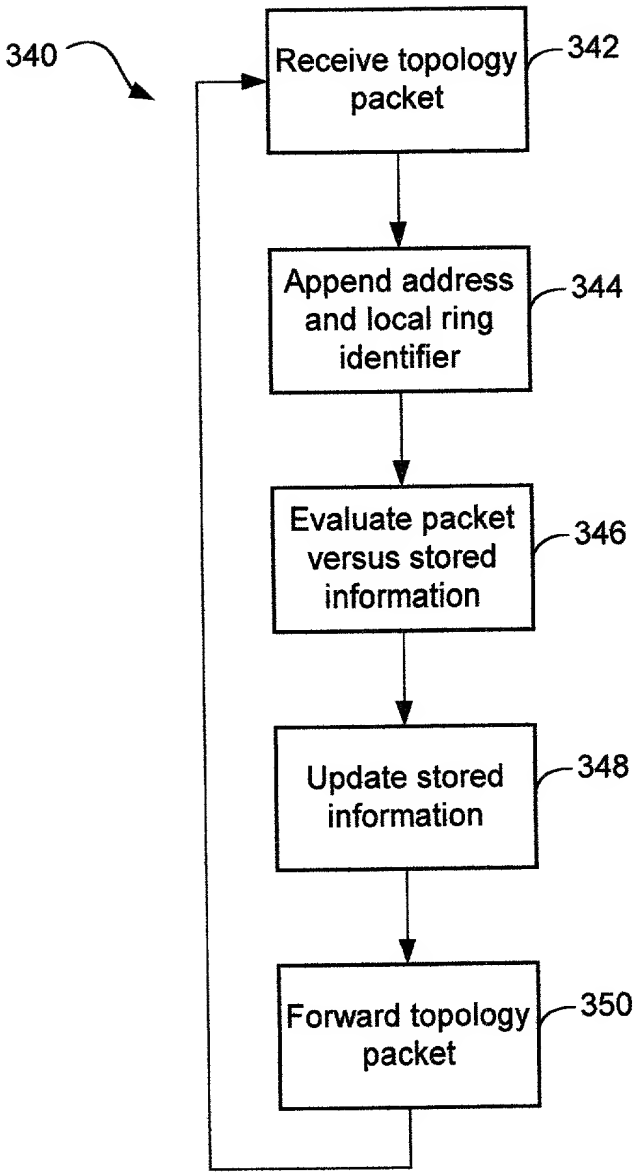
340
Receive topology packet
342
Append address and local ring identifier
344
Evaluate packet versus stored information
346
Update stored information
348
Forward topology packet
350

Fig. 3c

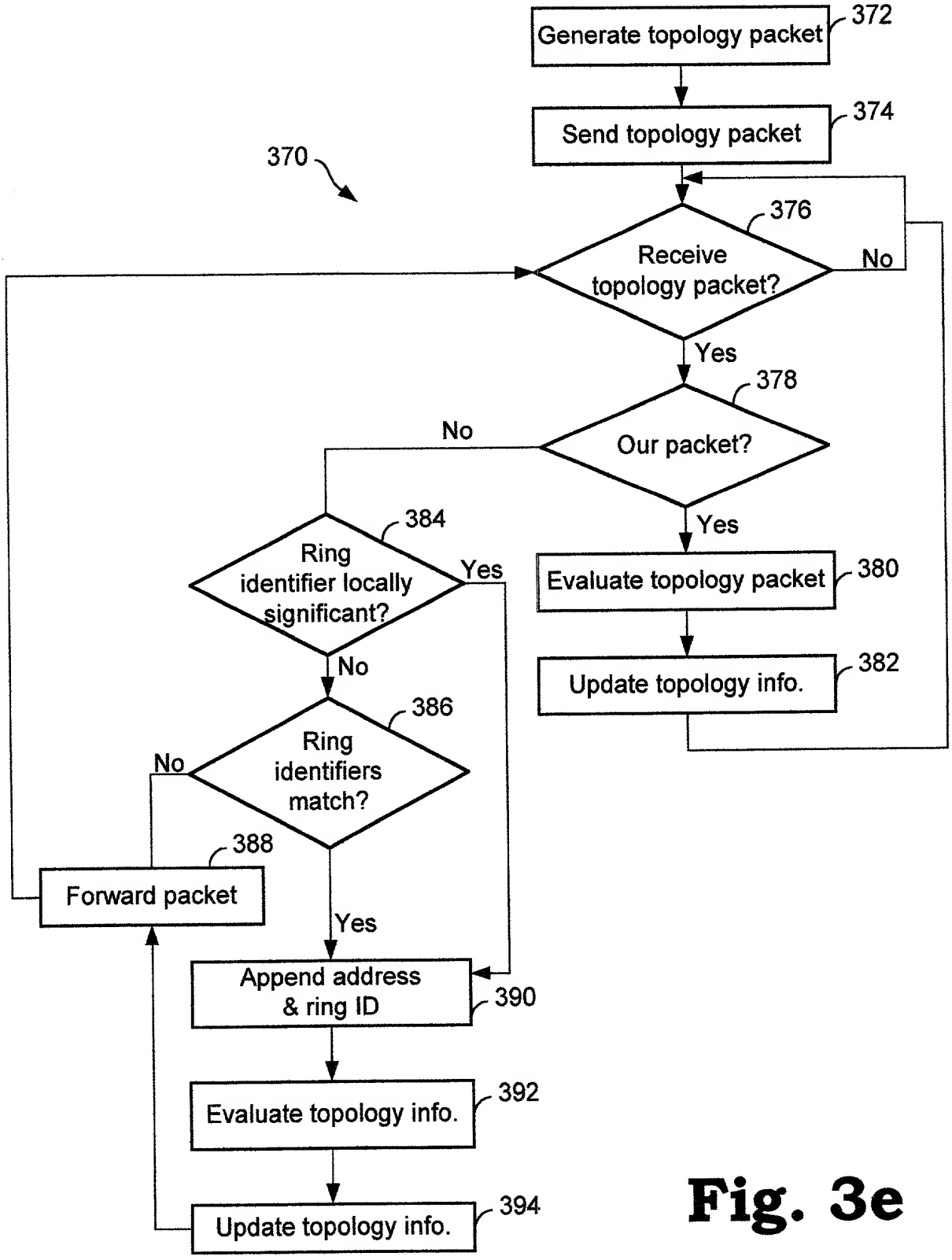
Generate topology packet
372
Send topology packet
374
370
376
Receive topology packet?
No
Yes
378
Our packet?
No
Yes
384
Ring identifier locally significant?
Yes
No
Evaluate topology packet
380
Update topology info.
382
386
Ring identifiers match?
No
388
Forward packet
Yes
Append address & ring ID
390
Evaluate topology info.
392
Update topology info.
394

Fig. 3e

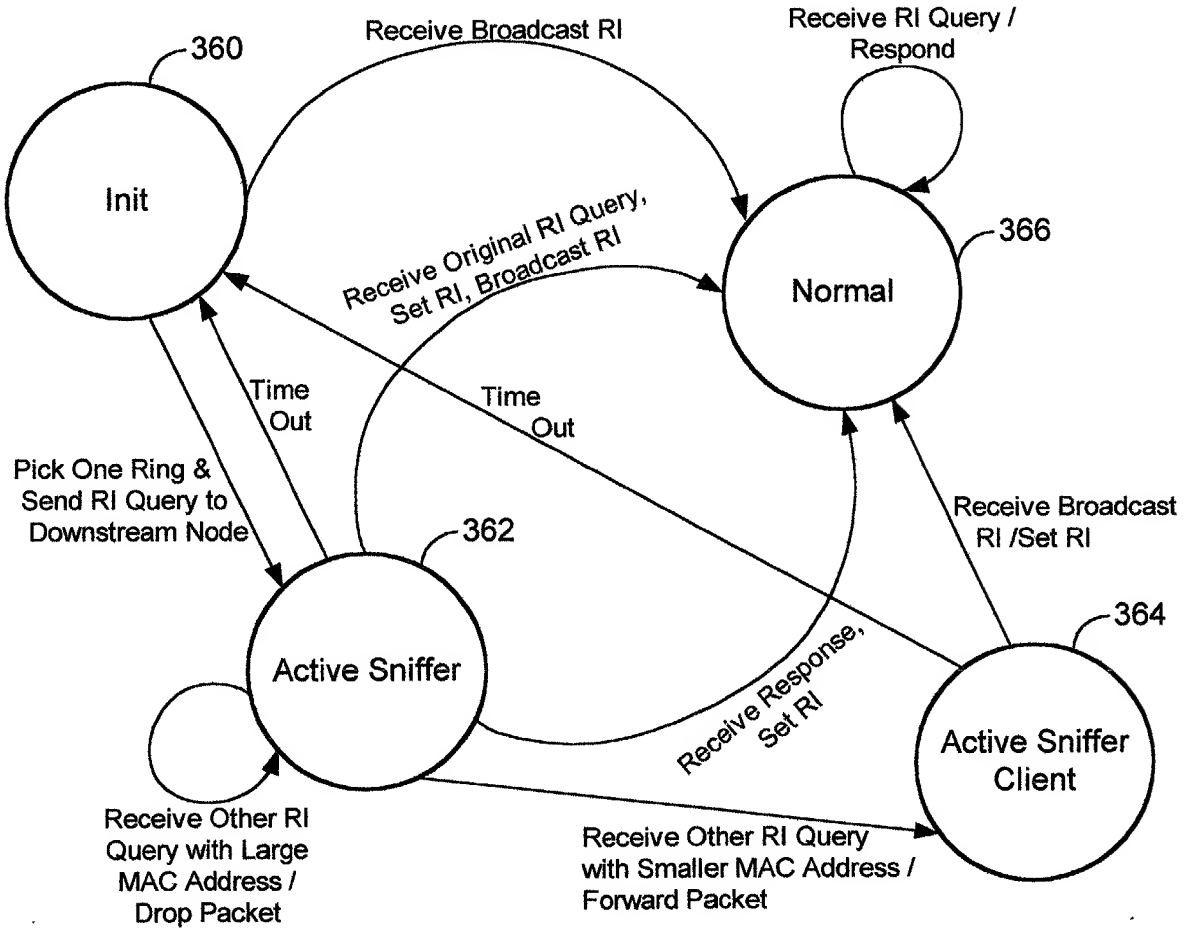
360
Receive Broadcast RI
Receive RI Query / Respond
Init
Normal
366
Receive Original RI Query, Set RI, Broadcast RI
Time Out
Time Out
Pick One Ring & Send RI Query to Downstream Node
362
Receive Broadcast RI /Set RI
364
Active Sniffer
Receive Response, Set RI
Active Sniffer Client
Receive Other RI Query with Large MAC Address / Drop Packet
Receive Other RI Query with Smaller MAC Address / Forward Packet

Fig. 3d

T06001 "02686860

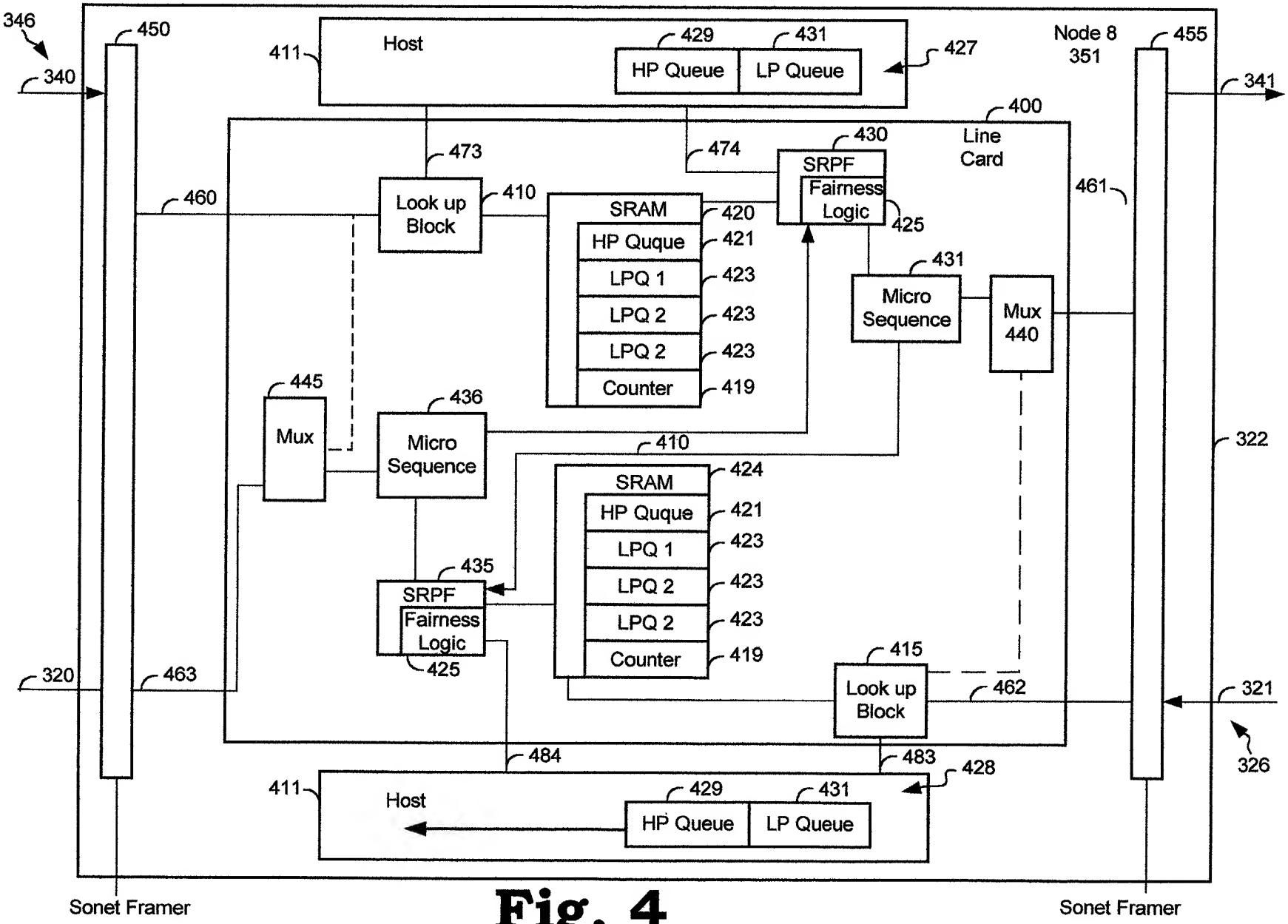

Fig. 4

T0600T " 02686860

502 Address (MAC, IP)	504 HOP Count Inner	506 HOP Count Outer	508 Latency Inner	510 Latency Outer	512 Static Ring Direction	514 Dynamic Ring Direction	503 Ring ID
12, 23, 46	10	8	1234	1456	I	O	I
12, 23, 47	9	9	1200	1400	I	I	I

Fig. 5